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Notice of Allowability	Application No.	Applicant(s)	
	10/647,144	LEE ET AL.	
	Examiner	Art Unit	
	Callie E. Shosho	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 3/7/06 and telephonic interview conducted 5/9/06.
2. ☒ The allowed claim(s) is/are 1-21.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>5/9/06</u> . 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____. |
|---|---|

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

(1) Claim 1, line 17 after formula (2), after "hydrogen" and before "an", delete ", and" and insert "or".

(2) Claim 1, line 18 after formula (2), after "hydroxyl" and before "an", delete "and" and insert "or".

(3) Claim 6, line 17 after formula (2), after "hydrogen" and before "an", delete ", and" and insert "or".

(4) Claim 6, line 18 after formula (2), after "hydroxyl" and before "an", delete "and" and insert "or".

2. Authorization for this examiner's amendment was given in a telephone interview with Darleen Stockley on 5/9/06.

Statement of Reasons for Allowance

3. The present claims are allowable over the “closest” prior art Taguchi et al. (U.S. 2004/0011248), Fassler et al. (U.S. 6,059,869), and Morehouse (U.S. 2,928,858) for the following reasons:

Taguchi et al. disclose ink comprising aqueous medium, organic solvent, colorant, wetting agent, stabilizer, surfactant, viscosity modifier, and up to 5% silanol-modified polyvinyl alcohol. However, while Taguchi et al. disclose the use of silanol-modified polyvinyl alcohol, there is no disclosure or suggestion in Taguchi et al. of water-soluble antimicrobial active polymer of formula (1) as required in all the present claims.

Further, the filing date of Taguchi et al. lies between the filing date and the priority date of the present application as seen below:

Application No. 10/647,144 *priority date* – 8/28/02

Taguchi et al. *filing date* – 6/23/03

Application No. 10/647,144 *filing date* – 8/25/03

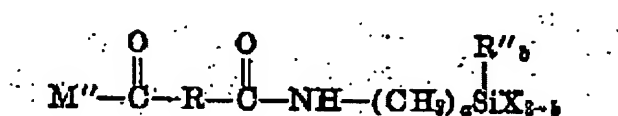
Under MPEP 706.02(b), rejections based on 35 U.S.C. 102(e) can be overcome by perfecting the filing date of the priority document. Applicants' filing on 3/7/06 of English language translation of foreign priority document filed on 8/25/03 results in the perfection of the foreign priority filing date. Thus, Taguchi et al. is no longer applicable against the present claims.

Fassler et al. disclose the use of hydroxy silane that is the reaction product of 3-aminopropyltriethoxysilane and anhydride such as phthalic anhydride which reaction product is

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identical to silane derivative of presently claimed formula (2) when R_2 is aryl group, R_3 is C_3 alkylene group, R_4 and R_5 are each C_2 alkyl group, and R_6 is C_2 alkoxy group. However, there is no disclosure or suggestion in Fassler et al. of using such hydroxy silane as substituent of a polymer and no disclosure or suggestion in Fassler et al. of water-soluble antimicrobial active polymer of formula (1) as required in all the present claims.

Morehouse disclose organosilane of the formula:



which is identical to the silane derivative of presently claimed formula (2) when b is 0, a is at least 3, R is alkylene or arylene, M'' is hydroxy group, and X is alkoxy group such as methoxy, ethoxy, and propoxy. However, there is no disclosure or suggestion in Morehouse of water-soluble antimicrobial active polymer of formula (1) as required in all the present claims.

Further, applicants' amendment filed 3/7/06 overcomes the 35 USC 112, second paragraph rejection of record.

In light of the above, it is clear that the rejections of record are untenable and so, the present claims are passed to issue.

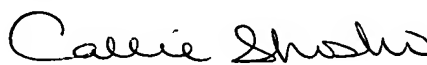
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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
5/9/06